

### ABSTRACT OF THE DISCLOSURE

A system for transmitting a signal through an imperfectly-conducting medium includes a transmitter station and a receiver station. The transmitter station has a transmitter and at least one conductor. The receiving station has at least one conductor and a receiver. The transmitter causes a current to flow from the transmitter conductor to the receiver conductor through the imperfectly-conducting medium. Associated with the current flow is an electric field. Because the current flow varies with the signal, the electric field varies with the signal. The receiving conductor senses the electric field and provides a signal to the receiver which detects the signal to be transmitted. The receiving station then passes the signal to an output device to be output.